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09/978,470	10/16/2001	Kevin Richard Plain	M-12331 US	5114

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EXAMINER

YIGDALL, MICHAEL J

ART UNIT	PAPER NUMBER
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2192

DATE MAILED: 07/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/978,470

Applicant(s)

PLAIN ET AL.

Examiner

Michael J. Yigdall

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 17-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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### **DETAILED ACTION**

1. Applicant's amendment and response filed on February 28, 2005 has been fully considered. Claims 1-20 are now pending.
2. It should be noted that Applicant has not pointed out support for new claims 3-20 in the originally filed specification.

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 1 and 2 have been fully considered but they are not persuasive.

Applicant's arguments are predicated on the assertion that the examiner has inconsistently applied the teachings of Cheng (Applicant's remarks, page 9, top). Specifically, Applicant contends that the examiner's identification of "context state" in Cheng switches from "software update information available for installed software" to "the then-current installation of software" (Applicant's remarks, page 13, table).

However, the examiner disagrees with Applicant's characterization. Cheng discloses a plurality of software components each having associated information, as Applicant acknowledges (Applicant's remarks, page 9, middle). While Applicant identifies "software update information in the database [that] specifies the software update program or files for a plurality of software products manufactured by diverse software vendors" as the examiner's interpretation of "associated context state," the same passage shows that "the database further stores information that describes an installation process for installing the software update on a user's computer." The latter information in the database is equated with "associated context

state.” As Cheng discloses, this information includes the configuration of the component when it is installed (see, for example, column 10, lines 55-62). A “current context state” of the system is cached and changed (see, for example, column 8, line 62 to column 9, line 16) to install the component in conformance with this “associated context state” (see, for example, column 8, lines 55-61). The “cached state of the context” of the system is restored as desired (see, for example, column 9, lines 28-55).

Moreover, as amended, claim 1 recites, “a plurality of components each having an associated context and context state” (emphasis added). Claim 1 further recites, “caching a current context state,” and “restoring a cached state of the context” (emphasis added). Thus, the claim recites an associated context state, a current context state, and a cached state of the context. The plain language of the claim does not positively link each form of “context state” to one another. In other words, it is not necessarily the first “associated context state” that is cached, and it is not necessarily the same “cached state of the context” that is subsequently restored. The plain language of the claim allows for separate and possibly different interpretations of “context state.” one that is “associated,” one that is “current,” and one that is “cached.” It is noted that Applicant has already identified and addressed potential antecedent basis issues in the claim (Applicant’s remarks, page 8, top), which is appreciated.

4. With respect to new claims 5 and 12, although Applicant suggests that software updates, as in Cheng, are not “additions” (Applicant’s remarks, page 16, bottom), the examiner disagrees. The software updates are “additions” to the software products configured on the system (see, for example, column 7, lines 46-61). Furthermore, Cheng discloses additional components in addition to the software updates (see, for example, column 15, lines 14-28).

***Election/Restrictions***

5. Newly submitted claims 17-20 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

Original claims 1 and 2 are directed to a method and machine for generating a configuration by installing components, classified in class 717, subclasses 174-178.

New claim 17 is directed to method of modeling a product for product configuration based on constraints, classified in class 700, subclasses 97-107 and especially 103.

The subject matter of claims 1-16 (group I) is distinct from the subject matter of claims 17-20 (group II). For example, group I recites caching a current context state before installing a component, installing the component, and subsequently restoring a cached state after installing the component. In contrast, group II recites representing classes of components within a configuration model of a product.

Since Applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 17-20 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

***Specification***

6. The objection to the abstract of the disclosure is withdrawn in view of Applicant's amendment filed on February 28, 2005.

*Claim Rejections - 35 USC § 102*

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1, 2, 4-8 and 11-15 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Pat. No. 6,151,643 to Cheng et al. (art of record, “Cheng”).

With respect to claim 1 (currently amended), Cheng discloses a method of generating a configuration comprising a plurality of components each having an associated context and context state (see, for example, column 2, line 62 to column 3, line 12, which shows generating a configuration of software components each having associated information), said context state equal to one or more of a plurality of values (see, for example, column 10, lines 26-32 and 55-61, which shows that the associated information includes a context state equal to one or more of a plurality of values, such as the configuration of the component when installed), said method comprising:

(a) caching a current context state in response to a requirement for the installation of a component (see column 8, line 62 to column 9, line 16, which shows archiving or caching the current configuration or context state of the system in response to an installation requirement);

(b) changing the current state of the context to the associated state of the context if they are not equal (see, for example, column 8, line 62 to column 9, line 16, which shows changing the current configuration or context state of the system to the configuration or context state associated with the component, and column 14, lines 45-64, which shows that this step is performed if the component is not yet installed);

(c) installing the component as part of the configuration (see, for example, column 8, lines 55-61, which shows installing the component as part of the configuration of the system based on its associated configuration or context state); and

(d) restoring a cached state of the context upon completing installation of the component (see, for example, column 9, lines 28-55, which shows restoring an archived or cached configuration or context state of the system after the installation of the component).

With respect to claim 2 (currently amended), Cheng discloses a server adapted to generate a configuration (see, for example, column 2, line 62 to column 3, line 12, which shows a service provider computer or server for generating a configuration of software components), the server comprising:

(a) a cache configured to hold a current context state in response to a requirement for the installation of a component (see column 8, line 62 to column 9, line 16, which shows archiving or caching the current configuration or context state of the system in response to an installation requirement), wherein the component is one of a plurality of components each having an associated context and context state (see, for example, column 2, line 62 to column 3, line 12, which shows a plurality of software components each having associated information), said context state equal to one or more of a plurality of values (see, for example, column 10, lines 26-

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32 and 55-61, which shows that the associated information includes a context state equal to one or more of a plurality of values, such as the configuration of the component when installed);

(b) a change module adapted to change the current context state to the associated state of the context if they are not equal (see, for example, column 8, line 62 to column 9, line 16, which shows changing the current configuration or context state of the system to the configuration or context state associated with the component, and column 14, lines 45-64, which shows that this step is performed if the component is not yet installed);

(c) an install module adapted to install the component as part of the configuration (see, for example, column 8, lines 55-61, which shows installing the component as part of the configuration of the system based on its associated configuration or context state); and

(d) a restore module adapted to restore a cached state of the context upon a completion of an installation of the component (see, for example, column 9, lines 28-55, which shows restoring an archived or cached configuration or context state of the system after the installation of the component).

With respect to claim 4 (new), the rejection of claim 1 is incorporated, and Cheng further discloses the limitation wherein the configuration comprises the configuration of a product selected from the group comprising: automobiles, computer hardware, computer software, professional service products, financial service products, medical products, pharmaceutical products, and construction products (see, for example, column 2, line 62 to column 3, line 12, which shows that the configuration comprises the configuration of computer software).



With respect to claim 5 (new), the rejection of claim 1 is incorporated, and Cheng further discloses the limitation wherein the context associated with a component represents a limited set of additional components that are compatible as additions to a particular configuration with the associated component (see, for example, column 15, lines 14-28, which shows that the context associated with a component represents a set of additional components compatible with the configuration of the component).

With respect to claim 6 (new), the rejection of claim 1 is incorporated, and Cheng further discloses the limitation wherein the context associated with a component represents a class of components that are compatible as additions to a particular configuration with the associated component (see, for example, column 15, lines 14-28, which shows that the context associated with a component represents a class of additional components compatible with the configuration of the component).

With respect to claim 7 (new), the rejection of claim 6 is incorporated, and Cheng further discloses the limitation wherein each component is associated with a context attribute that allows identification of the context of each component (see, for example, column 16, lines 6-15, which shows that each software component is associated with identifying information or attributes), the method further comprising:

(a) processing the context attribute associated with the installed component to determine the context associated with the installed component (see, for example, column 16, lines 6-15, which shows processing the identifying information or attributes to determine the context associated with the installed component).

With respect to claim 8 (new), the rejection of claim 1 is incorporated, and Cheng further discloses the limitation wherein the context is selected from the group comprising: a product line comprising compatible components, a current inventory, and a country of purchase (see, for example, column 10, lines 49-54, which shows that the context is a current inventory of software components).

With respect to claim 11 (new), the limitations recited in the claim are analogous to those of claim 4 (see the rejection of claim 4 above).

With respect to claim 12 (new), the limitations recited in the claim are analogous to those of claim 5 (see the rejection of claim 5 above).

With respect to claim 13 (new), the limitations recited in the claim are analogous to those of claim 6 (see the rejection of claim 6 above).

With respect to claim 14 (new), the limitations recited in the claim are analogous to those of claim 7 (see the rejection of claim 7 above).

With respect to claim 15 (new), the limitations recited in the claim are analogous to those of claim 8 (see the rejection of claim 8 above).

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

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such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 3, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheng, as applied to claims 1 and 2 above, respectively, in view of U.S. Pat. No. 6,367,075 to Kruger et al. (art made of record, "Kruger").

With respect to claim 3 (new), the rejection of claim 1 is incorporated, but Cheng does not expressly disclose the limitation wherein restoring a cached state of the context upon completing installation of the component further comprises:

(a) restoring a cached state of the context upon completing installation of the component while retaining installation of the component as part of the configuration.

However, Kruger discloses storing or caching a current context state of system (see, for example, column 4, lines 20-30) and building a tree to describe how to restore a cached state of the context (see, for example, column 4, lines 21-43). Kruger further discloses restoring a cached state of the context while retaining installation of other components (see, for example, column 8, lines 41-50), so as to recover from an error in one of several updates (see, for example, column 1, lines 41-50).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to supplement the method of Cheng with the restore features taught by Kruger, so as to recover from an error after several components are installed.

With respect to claim 10 (new), the limitations recited in the claim are analogous to those of claim 3 (see the rejection of claim 3 above).

11. Claims 9 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheng, as applied to claims 1 and 2 above, respectively, in view of U.S. Pat. No. 5,721,824 to Taylor (art made of record, "Taylor") in view of Kruger.

With respect to claim 9 (new), the rejection of claim 1 is incorporated, but Cheng does not expressly disclose:

(a) as a result of installing the component as part of the configuration, installing one or more additional components, wherein each additional installed component has an associated context; and

(b) nesting context states associated with each context of each additional installed component.

However, Taylor discloses (a) installing one or more secondary components after installing the primary component, and (b) layering or nesting each component on an action list (see, for example, column 1, line 63 to column 2, line 12), so as to install multiple packages in a single operation (see, for example, column 1, lines 57-60).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to supplement the method of Cheng with the install features taught by Taylor, so as to install multiple components in a single operation.

Cheng in view of Taylor does not expressly disclose:

(c) restoring a cached state of the context upon completing installation of the component further comprises restoring the cached state of the context upon completing installation of each additional component by restoring the nested context states in reverse.

However, Kruger discloses storing or caching a current context state of system (see, for example, column 4, lines 20-30) and building a tree to describe how to restore a cached state of the context (see, for example, column 4, lines 21-43). Kruger further discloses restoring a cached state of the context by restoring nested context states in reverse (see, for example, column 9, lines 35-48), so as to recover from an error in some or all of several updates (see, for example, column 1, lines 41-50).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to supplement the method of Cheng with the restore features taught by Kruger, so as to recover from an error after several components are installed.

With respect to claim 16 (new), the limitations recited in the claim are analogous to those of claim 9 (see the rejection of claim 9 above).

### *Conclusion*

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Yigdall whose telephone number is (571) 272-3707.

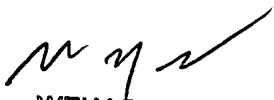
The examiner can normally be reached on Monday through Friday from 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael J. Yigdall  
Examiner  
Art Unit 2192

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WEI Y. ZHEN  
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